

Appl. No. 09/696,491
Amdt. dated December 2, 2003
Reply to Office Action of October 3, 2003

CURRENT LISTING OF CLAIMS

The listing of claims below replace all prior versions, and listings, of claims:

- 1 1. (Cancelled)
- 1 2. (Previously Presented) The method of claim 4, wherein detecting the error
2 occurs during a discontinuous transmission mode.
- 1 3. (Previously Presented) The method of claim 4, further comprising
2 receiving a pilot channel from the mobile unit over the link, the control signaling
3 comprising the pilot channel.
- 1 4. (Previously Presented) A method of performing power control in a mobile
2 communications system having a base station and a mobile unit, comprising:
3 detecting an error in control signaling transmitted over a link between the
4 base station and the mobile unit when traffic channels are not being communicated; and
5 adjusting a power control element based on the detected error,
6 wherein adjusting the power control element comprises adjusting a target
7 ratio of energy per bit to noise spectral density based on the detected error in the control
8 signaling.
- 1 5. (Cancelled)
- 1 6. (Previously Presented) The method of claim 4, wherein detecting the error
2 comprises detecting an error in the control signaling over a given period of time.
- 1 7. (Previously Presented) The method of claim 4, wherein detecting the error
2 comprises detecting an error in a given number of samples of the control signaling.
- 1 8. (Previously Presented) The method of claim 7, wherein detecting the error
2 comprises detecting an error in a given number of bits of the control signaling.

Appl. No. 09/696,491
Amdt. dated December 2, 2003
Reply to Office Action of October 3, 2003

1 9. (Previously Presented) The method of claim 4, further comprising
2 communicating a power control command based on the power control element to affect
3 transmission power of the mobile unit.

1 10. (Previously Presented) The method of claim 4, wherein detecting the error
2 comprises detecting a bit error rate.

1 11. (Previously Presented) The method of claim 4, further comprising
2 receiving the control signaling over a reverse link.

1 12. (Previously Presented) The method of claim 4, further comprising
2 receiving the control signaling over a forward link.

1 13. (Previously Presented) The method of claim 4, further comprising
2 receiving the control signaling over a link according to a code-division multiple access
3 protocol.

1 14. (Previously Presented) The method of claim 4, further comprising
2 detecting that the base station is in discontinuous transmission mode, wherein detecting
3 the error and adjusting the power control element are performed while the base station is
4 in the discontinuous transmission mode.

1 15. (Previously Presented) The method of claim 4, further comprising
2 detecting that the mobile unit is in a discontinuous transmission mode, wherein detecting
3 the error and adjusting the power control element are performed while the mobile unit is
4 in the discontinuous transmission mode.

1 16. (Original) The method of claim 15, wherein detecting that the mobile unit
2 is in discontinuous transmission mode comprises detecting a power level of a traffic
3 channel transmitted by the mobile unit.

Appl. No. 09/696,491
Amdt. dated December 2, 2003
Reply to Office Action of October 3, 2003

1 17. (Original) The method of claim 15, wherein detecting that the mobile unit
2 is in discontinuous transmission mode comprises detecting a state of a predetermined
3 information field.

1 18. (Original) The method of claim 17, wherein the information field
2 comprises one or more power control bits of a data frame transmitted by the mobile unit.

1 19. (Previously Presented) The method of claim 15, wherein adjusting the
2 power control element is based on the detected error if the mobile unit is detected to be in
3 the discontinuous transmission mode, the method further comprising adjusting the power
4 control element based on a frame error rate of traffic channels when the mobile unit is
5 detected to be not in discontinuous transmission mode.

1 20. (Previously Presented) A system for use in a mobile communications
2 system, comprising:
3 a receiver to receive control signaling and traffic signaling from a mobile
4 unit; and
5 a controller to:
6 detect whether the mobile unit is in discontinuous transmission
7 mode,
8 detect for error in the received control signaling from the mobile
9 unit and to adjust a power control condition based on detected error in the received
10 control signaling in response to detecting that the mobile unit is in the discontinuous
11 transmission mode, and
12 detect for error in the traffic signaling from the mobile unit and to
13 adjust the power control condition based on detected error in the traffic signaling in
14 response to detecting that the mobile unit is not in the discontinuous transmission mode.

1 21. (Original) The system of claim 20, wherein the control signaling
2 comprises a pilot channel.

Appl. No. 09/696,491
Amdt. dated December 2, 2003
Reply to Office Action of October 3, 2003

1 22. (Original) The system of claim 21, wherein the receiver is adapted to
2 receive code-division multiple access control signaling.

1 23. (Original) The system of claim 22, wherein the receiver is adapted to
2 receive IS-2000 control signaling.

1 24. (Previously Presented) The system of claim 20, wherein the traffic
2 signaling is not transmitted during discontinuous transmission mode.

1 25. (Cancelled)

1 26. (Previously Presented) The system of claim 20, wherein the control and
2 traffic signaling are communicated in a reverse link between the mobile unit and a base
3 station.

1 27. (Cancelled)

1 28. (Previously Presented) The system of claim 20, wherein the power control
2 condition comprises a target ratio of energy per bit to noise spectral density.

1 29. (Cancelled)

Appl. No. 09/696,491
Amdt. dated December 2, 2003
Reply to Office Action of October 3, 2003

1 30. (Previously Presented) An article comprising one or more machine-
2 readable storage media containing instructions for performing tasks in a mobile
3 communications system, the mobile communications system having a mobile unit, a base
4 station, and a link between the mobile unit and base station, the instructions when
5 executed causing a controller to:

6 determine whether the mobile unit is in discontinuous transmission mode;
7 detect for one or more errors in control signaling received over the link;
8 adjust a power control element based on the detected one or more errors in
9 the control signaling if the mobile unit is in the discontinuous transmission mode;
10 detect for one or more errors in traffic signaling received over the link;
11 and
12 adjust the power control element based on the detected one or more errors
13 in the control signaling if the mobile unit is not in the discontinuous transmission mode.

1 31. (Previously Presented) The article of claim 30, wherein the one or more
2 storage media contain instructions that when executed cause the controller to increase a
3 target ratio of energy per bit to noise spectral density if an error rate exceeds a threshold.

1 32. (Original) The article of claim 31, wherein the one or more storage media
2 contain instructions that when executed cause the controller to decrease the target ratio if
3 the error rate does not exceed the threshold.

1 33. (Previously Presented) A data signal embodied in a carrier wave
2 comprising one or more code segments containing instructions for performing tasks in a
3 mobile communications system, the instructions when executed causing a controller to:
4 monitor one or more errors in receiving predetermined pilot signal
5 information when traffic signaling is not being transmitted; and
6 perform outer loop power control based on the monitored one or more
7 errors, wherein performing the outer loop power control comprises adjusting a target ratio
8 of energy per bit to noise spectral density based on the monitored one or more errors in
9 the predetermined pilot signal information.

Appl. No. 09/696,491
Amdt. dated December 2, 2003
Reply to Office Action of October 3, 2003

1 34. (Original) The data signal of claim 33, wherein the instructions when
2 executed further cause the controller to further detect that a system has entered into a
3 discontinuous transmission mode.

1 35. (Original) The data signal of claim 34, wherein the system comprises a
2 mobile unit.

1 36. (Original) The data signal of claim 34, wherein the system comprises a
2 base station.